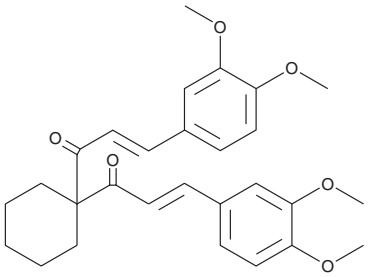
PRODUCT INFORMATION

FLLL32

Item No. 10638

CAS Registry No.:	1226895-15-3
Formal Name:	(2E,2'E)-1,1'-cyclohexylidenebis[3-(3,4-dimethoxyphenyl)]-2-propen-1-one
MF:	$C_{28}H_{32}O_6$
FW:	464.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 355 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

FLLL32 is supplied as a crystalline solid. A stock solution may be made by dissolving the FLLL32 in the solvent of choice. FLLL32 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of FLLL32 in these solvents is approximately 15 and 10 mg/ml, respectively. FLLL32 is also slightly soluble in ethanol.

Description

FLLL32 is a cell-permeable analog of curcumin (Item No. 81025) that inhibits JAK2-mediated phosphorylation of STAT3 on Tyr^{705} in cancer cells (IC_{50} = ~5 µM).[1,2] It blocks signaling from IFN-α or IL-6 through JAK2/STAT3 and induces apoptosis in several types of cancer cells.[1,2] FLLL32 does not interfere with IFN-γ-induced STAT1 signaling and does not adversely affect the function or viability of immune cells.[1] Through its effects on JAK2/STAT3 signaling, FLLL32 enhances the chemo- and radiosensitivity of cancer cells.[2-4]

References

1. Bill, M.A., Fuchs, J.R., Li, C., *et al.* The small molecule curcumin analog FLLL32 induces apoptosis in melanoma cells *via* STAT3 inhibition and retains the cellular response to cytokines with anti-tumor activity. *Mol. Cancer* **9,** 165 (2010).
2. Lin, L., Hutzen, B., Zuo, M., *et al.* Novel STAT3 phosphorylation inhibitors exhibit potent growth-suppressive activity in pancreatic and breast cancer cells. *Cancer Res.* **70(6)**, 2445-2454 (2010).
3. Abuzeid, W.M., Davis, S., Tang, A., *et al.* Sensitization of head and neck cancer to cisplatin through the use of a novel curcumin analog. *Arch. Otolaryngol. Head Neck Surg.* **137(5)**, 499-507 (2011).
4. Wu, X., Tang, W., Marquez, R.T., *et al.* Overcoming chemo/radio-resistance of pancreatic cancer by inhibiting STAT3 signaling. *Oncotarget* **7(10)**, 11708-11723 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM